

| L Number | Hits | Search Text | DB | Time stamp |
|----------|-------|---|---|---------------------|
| 1 | 5 | ruzga.in. | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:34 |
| 2 | 62424 | photon\$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:34 |
| 3 | 49 | micro adj photon\$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:34 |
| 4 | 84 | (micro adj photon\$3) or microphoton\$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:44 |
| 5 | 0 | ((micro adj photon\$3) or microphoton\$3) and scintillat\$5 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:45 |
| 6 | 42951 | scintillat\$ | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:45 |
| 7 | 12 | scintillat\$ same (optical near5 switch\$3) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:51 |
| 8 | 627 | scintillat\$ same gat\$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:53 |
| 9 | 2178 | scintillat\$ same (mirror\$2 or reflect\$3) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:54 |
| 10 | 87 | scintillat\$ same ((mirror\$2 or reflect\$3) near5 array\$1) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 15:58 |
| 11 | 464 | (250/368).CCLS. | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 16:18 |
| 12 | 797 | ((250/366) or (250/367)).CCLS. | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 16:19 |
| 13 | 0 | ("11not12").PN. | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 16:19 |
| 14 | 300 | ((250/368).CCLS.) not (((250/366) or (250/367)).CCLS.) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2003/08/25 16:20 |

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|----|-------|--|---|---------------------|
| 15 | 633 | ((250/366) or (250/367)).CCLS.) not ((250/368).CCLS.) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB | 2003/08/25 16:35 |
| 17 | 173 | scintillat\$ same multiplex\$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB | 2003/08/25 16:50 |
| 18 | 54593 | optic\$2 near5 switch\$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB | 2003/08/25 16:50 |
| 19 | 122 | (optic\$2 near5 switch\$3) and scintillat\$3 | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM TDB | 2003/08/25 16:51 |

DERWENT-ACC-NO: 2002-262676

DERWENT-WEEK: 200231

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TITLE: Optical system for microchemical
analysis systems, has optical waveguide which transmits
light from light source to detecting unit or light from
detecting unit to detector, and connects optical switch
and detecting unit

PATENT-ASSIGNEE: SUMITOMO ELECTRIC IND CO[SUME]

PRIORITY-DATA: 2000JP-0158134 (May 29, 2000)

PATENT-FAMILY:

| PUB-NO | PAGES | PUB-DATE | MAIN-IPC |
|-----------------|-------------|------------------|----------|
| JP 2001337083 A | | December 7, 2001 | N/A |
| 005 | G01N 031/20 | | |

APPLICATION-DATA:

| PUB-NO | APPL-DATE | APPL-DESCRIPTOR | APPL-NO |
|----------------|-----------|-----------------|---------|
| JP2001337083A | | N/A | |
| 2000JP-0158134 | | May 29, 2000 | |

INT-CL (IPC): G01N021/27, G01N021/64 , G01N021/77 ,
G01N031/20

ABSTRACTED-PUB-NO: JP2001337083A

BASIC-ABSTRACT:

NOVELTY - An optical system for microchemical analysis
systems, consists of an
optical waveguide. The optical waveguide transmits light
from light source to
a detecting unit or light from detecting unit to a
detector, and connects an
optical switch (16) and the detecting unit.

USE - As optical system for micro chemical analysis systems used for laser induced fluorescence, absorptiometry, chemiluminescence measuring method or scintillation and proximity assay (claimed). Also for performing photometric analysis of micro amount sample. For analysis system of micro-total analysis system (micro-TAS), or a micro reactor used in biotechnology, environmental measurements and fine chemicals.

ADVANTAGE - Optical system performs high speed processing of the micro chemical analysis systems.

DESCRIPTION OF DRAWING(S) - The figure shows the model of micro chemical analysis system utilizing the optical system.

Micro fluid chip 11

Optical fiber 13

Optical switch 16

CHOSEN-DRAWING: Dwg.2/5

TITLE-TERMS: OPTICAL SYSTEM ANALYSE SYSTEM OPTICAL
WAVEGUIDE TRANSMIT LIGHT
LIGHT SOURCE DETECT UNIT LIGHT DETECT UNIT
DETECT CONNECT OPTICAL
SWITCH DETECT UNIT

DERWENT-CLASS: B04 D16 J04 S03

CPI-CODES: B11-C07B3; B11-C07B4; B11-C09; D05-H09;
J04-B01A;

EPI-CODES: S03-E04A1; S03-E04D; S03-E04E; S03-E09D;

CHEMICAL-CODES:
Chemical Indexing M6 *01*
Fragmentation Code
M905 Q233 R511 R514 R521 R528

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2002-078144

Non-CPI Secondary Accession Numbers: N2002-204193

[0019] Drawing 5 shows the system suitable for performing chemiluminescence measurement or a scintillation pro squeak tee assay. In order that this system may measure the luminescence itself, the light source is not necessarily required. After the micro fluid chip 31 which has two or more flow cells or capillary tubes which are a detecting element-ed, the electrode holder 32 which has a micro lens is formed. Two or more optical fibers 33 are connected to the electrode holder 32. An electrode holder 32 holds each optical fiber 33 in the position of each ***** (each flow cell or each capillary tube). The structure of holding an optical fiber 33 is the same as that of what is shown in drawing 3 . The nose of cam of an optical fiber 33 counters a detecting element-ed in order to take in luminescence from a sample. The other end of the optical fiber 33 by which the end was combined with the electrode holder 32 is connected to an optical switch 36. All the optical fibers 33 connected to the electrode holder 32 are connected to the optical switch 36. An optical switch 36 is connected with detection equipment 39 (photo multiplier) by optical-fiber 33'. Each cell of a micro fluid chip or luminescence from each capillary tube is led to detection equipment 39 through an optical fiber 33 according to the change mechanism of an optical switch 36 to suitable timing.